<u>REMARKS</u>

Reconsideration of the present application is respectfully requested. Claims 1, 2, 4-13, 16, 17, 19-27, 30-36, and 38-43 have been amended herein. Claim 6 has been cancelled. As such, claims 1-5 and 6-45 are pending herein. Care has been exercised to introduce no new matter.

Rejections based on 35 U.S.C. § 112

Claims 4 and 19 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the use of the term "autocorrelation." The Applicants have amended the specification to include the term "autocorrelation." As the term was originally in the claims, Applicants submit that the addition to the specification does not constitute new matter. In addition, one skilled in the art would recognize that autocorrelation is a common method of statistical analysis when time series data is used as supported in paragraph [0023] and Table 4. As such, Applicants request withdrawal of the §112 rejection of these claims.

Rejections based on 35 U.S.C. §101

Claims 1-15 and 30-45 stand rejected under 35 U.S.C. §101 as being drawn to non-statutory subject matter. Claim 1 has been amended to include storage component for storing the enhanced data groupings generated by a data enhancement layer. As such, Applicants submit that claim 1 submits a practical application of storing generated enhanced data groupings. Claim 30 has been amended to include a storage means for storing the dimensional enchanced data grouping. As such, Applicants submit that claims 1 and 30 satisfy the requirements of §101 and Applicants respectfully request withdrawal of the rejection of claim 1 and 30.

Claims 38 and 43 stand rejected for being directed to non-statutory subject matter namely the examiner has interpreted them to recite data structures. Claim 38 has been amended

to include a storage component storing generated extended dimension. The Applicants submit that claim 38 submits a practical application of storing generated extended dimensions. Claim 43 has been amended to include a storage component for storing enhanced data groupings. As such, Applicants submit that claims 38 and 43 satisfy the requirements of §101 and Applicants respectfully request withdrawal of the rejection of claims 38 and 43.

Rejections based on 35 U.S.C. § 102(b)

Claims 1-11, 16-25, 30-35, and 38-40 stand rejected under 35 U.S.C. 102(b) as being anticipated by an article in the Proceedings of the 20th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval titled "Cat-a-Cone: an interactive interface for specifying searches and viewing retrieval results using a large category hierarchy" by Hearst (hereinafter the "Hearst reference"). As the Hearst reference fails to describe, either expressly or inherently, each and every element as set forth in the claims as amended, Applicants respectfully traverse these rejections, as hereinafter set forth.

Amended claim 1 is directed to a computer system for generating a dimensional enhanced data grouping. The system comprises an input interface receiving transactional clinical records comprising data generated by a hospital, a laboratory or an insurer. The system further comprises a set of rules and a data enhancement layer, communicating with the input interface and the set of rules. The data enhancement layer generates a dimensional enhanced data grouping based on the transactional clinical records and the set of rules. The enhanced data grouping comprises at least one of the transactional clinical records and at least one extended dimension appended to the at least one of the transactional clinical records. The system further comprises a storage component for storing the dimensional enhanced data group. *See* Specification, FIG. 2 and ¶¶ [0003], [0006], and [0015]of the application as filed.

The Hearst reference is directed to a graphical user interface that integrates searching and browsing of biomedical articles. (See Page 246). Online text collections have category labels that have been assigned. The Hearst reference allows for the simultaneous display of representations of categories and retrieved documents and displays multiple selected categories simultaneously. The Hearst reference includes animation and a three-dimensional graphical workspace to accommodate the category hierarchy and to store intermediate search results. The Hearst reference merely teaches interpreting existing data and grouping it accordingly and then displaying search results using 3-dimensional animation.

The Hearst reference does not teach appending at least one extended dimension to the at least one of the transactional clinical records generated by a hospital, a laboratory or an insurer. First, the Hearst reference is directed to searching biomedical articles from a library catalog system, not to searching transactional clinical records generated by a hospital, laboratory or an insurer. Second, the Hearst reference does not teach the generation of new information (e.g., extended dimension) and appending the new information to transactional clinical records. As such, the Hearst reference fails to teach the limitations of claim 1. Claims 2-5 and 7-15 depend directly or indirectly from claim 1. As such, Applicants request withdrawal of the §102(b) rejection of these claims.

Amended claim 16 is directed to a method for generating a dimensional enhanced data grouping. Transactional clinical records comprising data specific to a patient are received. A set of rules are accessed and an enhanced data grouping based on the transactional clinical records and the set of rules is generated. The enhanced data grouping comprises at least one of the transactional clinical records and at least one extended dimension appended to the at least one of the transactional clinical records.

The Hearst reference, on the other hand, is directed to a graphical user interface that integrates searching and browsing of biomedical articles. (See Page 246). Online text collections have category labels that have been assigned. The Hearst reference allows for the simultaneous display of representations of categories and retrieved documents and displays multiple selected categories simultaneously. The Hearst reference includes animation and a three-dimensional graphical workspace to accommodate the category hierarchy and to store intermediate search results. The Hearst reference merely teaches interpreting existing data and grouping it accordingly and then displaying search results using 3-dimensional animation.

The Hearst reference does not teach appending at least one extended dimension to the at least one of the transactional clinical records comprising data specific to a patient. First, the Hearst reference is directed to searching biomedical articles from a library catalog system, not to searching transactional clinical records comprising data specific to a patient. Second, the Hearst reference does not teach the generation of new information (e.g., extended dimension) and appending the new information to transactional clinical records. As such, the Hearst reference fails to teach the limitations of claim 16. Claims 17-29 depend directly or indirectly from claim 16. As such, Applicants request withdrawal of the §102(b) rejection of these claims.

Amended claim 30 is directed to a computer system for generating a dimensional enhanced data grouping. The system comprises input means for receiving transactional clinical records generated by a medical facility and rules means for storing a set of rules. The system further comprises data enhancement means that is in communication with the input means and rules means. The data enhancement means generates a dimensional enhanced data grouping based on at least one of the transactional clinical records and the set of rules. The enhanced data grouping comprises at least one of the transactional clinical records and at least one extended

dimension appended to the at least one of the transactional clinical records. The system further comprises a storing means for storing the dimensional enhanced data grouping.

The Hearst reference, on the other hand, is directed to a graphical user interface that integrates searching and browsing of biomedical articles. (See Page 246). Online text collections have category labels that have been assigned. The Hearst reference allows for the simultaneous display of representations of categories and retrieved documents and displays multiple selected categories simultaneously. The Hearst reference includes animation and a three-dimensional graphical workspace to accommodate the category hierarchy and to store intermediate search results. The Hearst reference merely teaches interpreting existing data and grouping it accordingly and then displaying search results using 3-dimensional animation.

The Hearst reference does not teach a data enhancement means for generating an dimensional enhanced data grouping that comprises at least one of the transactional clinical records generated by a medical facility and appending at least one extended dimension to the at least one of the transactional clinical records. First, the Hearst reference is directed to searching biomedical articles from a library catalog system, not to searching transactional clinical records comprising generated by a medical facility. Second, the Hearst reference does not teach the generation of new information (e.g., extended dimension) and a data enhancement means for appending the new information to transactional clinical records. As such, the Hearst reference fails to teach the limitations of claim 30. Claims 31-37 depend directly or indirectly from claim 30. As such, Applicants request withdrawal of the §102(b) rejection of these claims.

Amended claim 38 is directed to a dimensional enhanced data grouping. The dimensional enhanced grouping comprises transactional clinical records comprising data generated by at least one of a hospital, a laboratory, a university, a military or other government

installation, and an insurer. The grouping further comprises at least one extended dimension appended to at least one of the transactional clinical records. The at least one extended dimension is generated based on at least one attribute of the at least one of the transactional clinical records and a set of rules. The grouping further comprises a storing component for storing the extended dimension appended to the at least one of the transactional clinical records.

The Hearst reference, on the other hand, is directed to a graphical user interface that integrates searching and browsing of biomedical articles. (See Page 246). Online text collections have category labels that have been assigned. The Hearst reference allows for the simultaneous display of representations of categories and retrieved documents and displays multiple selected categories simultaneously. The Hearst reference includes animation and a three-dimensional graphical workspace to accommodate the category hierarchy and to store intermediate search results. The Hearst reference merely teaches interpreting existing data and grouping it accordingly and then displaying search results using 3-dimensional animation.

The Hearst reference does not teach data grouping that comprises at least one of the transactional clinical records generated by a hospital, a laboratory, a university, a military or other government installation, or an insurer and appending at least one extended dimension to the at least one of the transactional clinical records. First, the Hearst reference is directed to searching biomedical articles from a library catalog system, not to searching transactional clinical records comprising generated by a hospital, a laboratory, a university, a military or other government installation, or an insurer. Second, the Hearst reference does not teach the generation of new information (e.g., extended dimension) and a data enhancement means for appending the new information to transactional clinical records. As such, the Hearst reference

fails to teach the limitations of claim 38. Claims 39-42 depend directly or indirectly from claim 38. As such, Applicants request withdrawal of the §102(b) rejection of these claims.

Amended claim 43 is directed to a queryable datamart comprising a dimensional enhanced data grouping. The data grouping comprises transactional clinical records generated by at least one of a hospital, laboratory and insurer. The data grouping further comprises at least one extended dimension appended to the at least one of the transactional clinical records. The least one extended dimension is generated based on at least one attribute of the transactional clinical records and a set of rules. The data grouping further comprises an interface to a query engine to interrogate the dimensional enhanced data grouping and a storage component for storing the enhanced data grouping.

The Hearst reference, on the other hand, is directed to a graphical user interface that integrates searching and browsing of biomedical articles. (See Page 246). Online text collections have category labels that have been assigned. The Hearst reference allows for the simultaneous display of representations of categories and retrieved documents and displays multiple selected categories simultaneously. The Hearst reference includes animation and a three-dimensional graphical workspace to accommodate the category hierarchy and to store intermediate search results. The Hearst reference merely teaches interpreting existing data and grouping it accordingly and then displaying search results using 3-dimensional animation.

The Hearst reference does not teach data grouping that comprises at least one of the transactional clinical records generated by a hospital, laboratory or insurer and appending at least one extended dimension to the at least one of the transactional clinical records. First, the Hearst reference is directed to searching biomedical articles from a library catalog system, not to searching transactional clinical records comprising generated by a hospital, a laboratory, a

university, a military or other government installation, or an insurer. Second, the Hearst reference does not teach the generation of new information (e.g., extended dimension) and for appending the new information to transactional clinical records. As such, the Hearst reference fails to teach the limitations of claim 43. Claims 44-45 depend directly or indirectly from claim 38. As such, Applicants request withdrawal of the §102(b) rejection of these claims.

Rejections based on 35 U.S.C. § 103

Claims 12-15, 26-29, 36-37, and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hearst in view of Official Notice. Applicants respectfully assert amended independent claims 1, 16, 30, 38 and 43 are novel and non-obvious over the Hearst reference and as claims 12-15, 26-29, 36-37, and 41-45 depend from these, these claims are allowable as well.

CONCLUSION

For at least the reasons stated above, claims 1-5 and 7-45 are now in condition for allowance. Applicant respectfully requests withdrawal of the pending rejections and allowance of claims 1-5 and 7-45. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned by telephone prior to issuing a subsequent action. The Commissioner is hereby authorized to charge any amount required to Deposit Account No. 19-2112.

Respectfully submitted,

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